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ABSTRACT

Two articles on the urbanization of Kenya are presented in this survey. The first one, "Urbanization Trends and Prospects," by Luigi Laurenti, states that urbanization has only recently been recognized as a problem of some importance in Kenya, and this recognition is far from comprehensive. Consequently, public policy--and especially planning for economic and social development--has not yet faced up to dealing with urbanization at any level, be it diagnosing problems, planning solutions, providing legislative and administrative mechanisms adequate for the programs and projects needed, or making appropriate allocations of resources. Topics dealt with here are migration, urban squatters, the role of urban centers, urban development committees, the Nairobi Urban Study, urban development, growth centers, dispersal of industry, differential service needs, urban infrastructure, pollution control, the scale and pace of urbanization, and alternatives for Kenya. The second article, "Rural Development and Urban Growth," by John Gerhart, discusses the importance of rural development programs as a part of urban growth strategy. Recent evidence suggests that rural development programs represent an efficient way to create employment and build a base of purchasing power on which future growth of the modern sector depends. [For related documents in this series, see UD 013 731-013 738 and UD 013 740-013 744 for surveys of specific countries. For special studies analyzing urbanization in the Third World, see UD 013 745-UD 013 748.] (Author/SB)

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An International
Urbanization Survey Report
to the Ford Foundation

Urbanization in Kenya

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This working paper was prepared as supportive material for an international Survey of Urbanization in the developing countries, which was organized by the Ford Foundation late in 1970 and was completed late in 1972. The purpose of the Survey was to provide findings and recommendations to guide the Foundation in making informed judgments on its future participation in programs related to the urban condition in the less-developed countries.

The Survey was directed neither to perform nor to commission original research. Its work was to be reportorial, analytic, and indicative of program choices. To serve these objectives, the Survey was essentially a field operation in which the staff travelled widely in the countries where the Foundation maintains field offices and drew not only upon its own observations but upon the experience of Foundation personnel assigned to the developing countries. The staff's own field notes on phases of urbanization in specific countries were expanded into working papers both to record observations and to clarify the deductive processes and the analyses of data which were to form a demonstrable basis for the Survey's conclusions. Additional working papers were provided by Foundation personnel with a depth of field knowledge, and by consultants expert either in specific countries or in topics of special interest.

The Survey working papers and special studies were originally intended only for internal use. It became evident, however, that the body of material had values which argued for wider exposure. Accordingly, the Foundation is publishing the papers for those with special country or topical interests and for those interested in the material as a whole.

The working papers carry disclaimers appropriate to the circumstances of their preparation and to the limitations of their original purpose. The reader should not expect to find in them either the product of original research or a comprehensive treatment of the processes of urbanization in the particular country. Rather, they are occasional papers whose unity derives from their use as exemplary and illustrative material for the Survey.

But unity of form and substance is not the measure of their value. Each report and special study is an essay on some aspect of urbanization in the developing countries. In most instances, they are what a good essay should be—unmistakably personalized and therefore reflective of the insights and the convictions of informed authors.

The International Urbanization Survey

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ED 079458

URBANIZATION IN KENYA

Urbanization Trends and Prospects

by

Luigi Laurenti

Rural Development and Urban Growth

by

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The Ford Foundation

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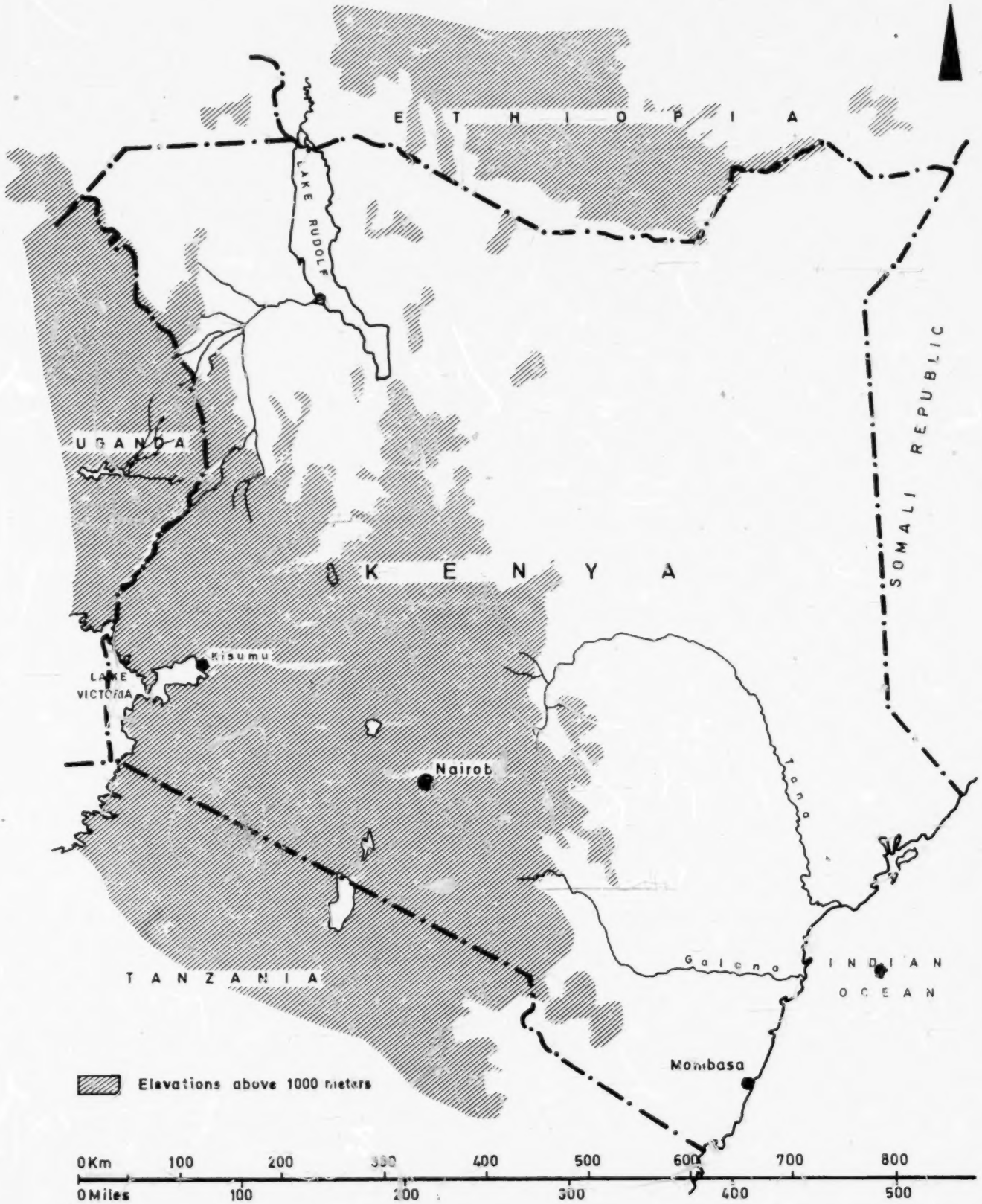

U R B A N I Z A T I O N I N K E N Y A

I N T E R N A T I O N A L U R B A N I Z A T I O N S U R V E Y

THE OVERLOOKED PHENOMENON

Only recently has urbanization begun to be recognized as a problem of some importance in Kenya. And recognition is far from comprehensive, so that in fact only the tip of the iceberg is perceived. Consequently, public policy--and especially planning for economic and social development--has not yet faced up to dealing with urbanization at any level, be it diagnosing problems, planning solutions, providing legislative and administrative mechanisms adequate for the programs and projects needed, or making appropriate allocations of resources.

What can explain this delay in identifying urbanization as a problem? Two factors suggest themselves. First, rapid urban growth in Kenya started only after World War II, and has produced only two cities with over 100,000 inhabitants--Nairobi and Mombasa. Second, municipal administration was handled fairly well for the modest urban centers of pre-Independence days, so that no serious dilemmas developed. Only in the past five years or so, as the pressures of accelerating urban growth in many Kenyan centers pushed beyond local staff and finance capacities, have problems begun to emerge with such rapidity and on such a scale that they have become visible to at least a scattering of administrators, social scientists, technicians and politicians.

Whatever the explanation, a review of policies, programs and attitudes in a number of fields makes urbanization notable by its omission, though certain aspects are dealt with in limited and isolated fashion. Specifically, the failure to perceive the disadvantages and dangers of an undisciplined urbanization process is reflected in a number of ways:

1. Physical planning, which started twenty years ago as central government assistance in city planning for a few urban centers, followed traditional paths--that is, fundamental approaches to urbanization problems were not developed. When the Town Planning Department was established within the Ministry for Lands and Settlement in 1960, conventional city planning gradually became available to more and more urban centers, on a contract basis, so that today most have at least a preliminary master plan. Nairobi has managed better than the others by maintaining its own planning staff, but is only now beginning to cope with its urbanization problems on anything like a comprehensive basis. Unfortunately, the translation of the cities' physical plans into reality has not gone well, largely because of staff and budget limitations at local levels and failure of the central government to give the necessary encouragement and financial support. The major failing of physical planning, however, has been that its horizons have been too limited:

the processes of urbanization have not been studied and therefore the basis for physical planning has been inadequate.

2. Legislation relating to land use and planning is generally limited to physical planning and control. Local Government Regulations (1963) empower municipal and county councils to plan and control the development and use of land and buildings, but because local authorities lack adequate staff, this legislation has been used only as a basis for building regulations. No local authority except Nairobi has begun to deal adequately with physical planning. The Land Planning Act (1968) extended comprehensive planning and control powers to vital areas within five miles of municipalities and townships, within 400 feet of trunk roads, and most of two coastal districts.

3. Comprehensive national and regional development planning, attempting to take account of the strategic elements for promoting economic and social growth, was not adopted until 1964. Until such an approach to growth policies at national and local levels was taken, neither the data nor the broad, multi-factor analysis existed as a basis upon which to recognize, understand and cope with the problems of urbanization.

4. Development planning and implementation have thus far focused on the most obvious targets and the means for achieving them: increasing output in agriculture and indus-

try; promoting exports; expanding transport, power and communications; coping with increasing demands for education, health services and welfare. This is of course understandable, and follows the pattern in most developing countries. The 1966/70 DevPlan emphasized such basic objectives, but with no special reference to urbanization problems. The 1970/74 DevPlan, while concentrating on rural development as the central problem, for the first time turned national attention to urbanization, putting considerable emphasis on the necessity for integrating economic and physical development work. There is little doubt that if adequate urbanization policies and programs evolve, they will come about chiefly through this comprehensive planning approach.

5. As urban growth has accelerated, influential political opinions have voiced an increasing bias against the development of large centers, and instead favor decentralization of urban growth to smaller centers around the country. This would be promoted by Government action through improved infrastructure, direct exhortation, and reducing the economic attractions of the larger cities by concessions in taxes, transport rates and utility charges for selected growth locations. Policies along these lines are lightly touched on in the DevPlan for 1966/70 and firmly stated in the one for 1970/74. There has been no analysis of the negative attitude toward the growth of larger cities, but it seems to be a spontaneous reaction against the highly visible contrast be-

tween the wealth and comforts available to many in cities like Nairobi and Mombasa, and the markedly poorer conditions in most of the smaller urban centers and in the rural areas. Politically, there undoubtedly is a desire by those from areas with only small cities and towns to have the pattern of urban growth altered in their favor.

6. Along with the decentralization policy, there has developed a growing emphasis on restraining rural/urban migration and on getting the urban unemployed to go "back to the land". This has been supported at every level, from the President on down. Again, no process of analysis supports such policies -- they are quick reactions to superficially of the problems, either at the urban or the rural level.

7. Efforts of local authorities to identify the most urgent problems caused by urban growth, and to plan projects and obtain the necessary resources to carry them out, have been almost completely frustrated by the Treasury. Financial officers have shown little understanding of even the simpler requirements for adequate administration and physical facilities, and have slashed budget requests year after year. As a result, the amounts available for capital and operational programs have been seriously inadequate, and all urban centers are suffering from an increasing shortage in staff and infrastructure. Additionally, development of staff for local administration has lagged badly, partly because staffing requests have been severely pruned by the Directorate of Per-

sonnel and partly because the Ministry of Local Government has not appreciated how much support, training and guidance must be supplied by central government to enable local authorities gradually to become competent in handling local problems, including urbanization. The Ministry itself is extremely thin on staff and does not yet grasp the full dimensions of the urbanization dilemma, so it cannot assist local authorities as it should.

BEGINNINGS OF RECOGNITION

The pressures generated by rapid increases in population concentration cannot continue to be ignored in Kenya any more than they can elsewhere. Little by little, various aspects of the urbanization syndrome are being identified and often tackled, though on a piecemeal basis. There are even indications that the complex nature of the urbanization phenomenon is beginning to be perceived.

Migration

Growing concern over rural/urban migration has already been mentioned in a negative context, but there is a positive side as well. First, this concern has encouraged a more comprehensive view of the economic/social web that links urban and rural areas--this should foster more rational policies. Next, it has supported the allocation of more resources to rural development, partly on the over-simplified argument

that economic/social improvement in rural areas will keep more people in rural areas. And finally, it is bringing to many the realization that the broad flow of people to the urban centers is an inevitable process that has occurred in every developing society as newer technologies exert their impacts--a process which can only be marginally influenced by attempts to reduce rural/urban economic and social differentials. This increasing sophistication about migration patterns is limited to a relatively small group of government administrators, planners and elected representatives but it should have a healthy and widening influence on policy discussions and decisions.

Urban Squatters

One of the direct consequences of heavy migration to cities has been the familiar problem of urban squatters, primarily in Nairobi, Mobasa and Kisumu. Efforts to deal with the escalating problems of employment, housing and services for this special group of urban dwellers--especially in Nairobi where they account for more than 30 per cent of population--are beginning to drive home some truths about the urbanization process. As pressures continue to build, both local and central government will be compelled to undertake programs to keep the urban squatter situation under some degree of control; these programs will have a far - reaching educational impact, gradually increasing the base for more comprehensive approaches to urbanization problems.

Role of Urban Centers

Statements made by Kenyan representatives at the Kampala seminar held in November 1969, on the role of urban and regional planning in national development in East Africa, reveal a growing awareness on the part of physical planners, industrial planners and promoters, land use administrators and economists, of the multiple inter-related functions and requirements of urban centers, and their relationship to other elements of the society. The awareness is still limited to primarily physical aspects, but is beginning to include economic considerations. What is seriously lacking so far, despite these improvements, is an appreciation of social aspects as they relate to urbanization policies, both in terms of the impact of present policies and the requirements of policy formulation.

Urban Development Committees

In late 1968 the Cabinet instructed that two urban development committees be formed, one for Nairobi and one for Mombasa. This was done because it was felt that the complex problems faced by the two largest centers in Kenya could not be adequately handled through the District and Provincial Development Committees already existing throughout the country. By implication, it was assumed that such committees could cope with all matters arising in connection with the other five municipalities, 17 townships and scores of small urban areas. This has not been borne out by events.

Although the formation of these two urban development committees indicated some appreciation of the difficulties of adequately dealing with urban growth, the committees have not been effective. The Nairobi one met only three times during 1969, with poor attendance and ineffective action, while the Mombasa one has never been called together. The major cause of this poor performance has been the effective central government leadership and follow-up required to make the committees work as purposeful investigative, review, and action groups.

Nairobi Urban Study

The complex and costly requirements for keeping certain essential services matched to surging population growth have, at least in the case of Nairobi, led city officers and technicians to realize that a piecemeal approach to urbanization is frustrating and largely ineffective. Nairobi needs major expansion of its water supplies by the mid-70s, but its initial planning efforts, with the help of water consultants, proved to be unacceptable because the demand base and the requirements for related sewerage and drainage had not been adequately analyzed. When further work was done, with assistance from WHO and the central Government, it began to be clear to city administrators that water supply and sewerage were related to each other and to most other services, and all were related to the city's economic/physical/social base. This realization gathered strength as

a parallel study plan for expansion of the street system moved forward. The outcome was a proposal in early 1970 to mount a full urban growth study which would take account of all important economic/physical/social variables on an integrated basis, and project a capital program for the short and long term which could be justified by such a comprehensive analysis. This study is now underway and scheduled for completion before mid-1973; it is further planned that the methodology and special skills developed in carrying out the study will be applied thereafter by a permanent staff group, so that Nairobi's infrastructural, operative and budget requirements will be kept constantly up-to-date.

Urban Development

Although the key strategy of the 1970/74 DevPlan is "to direct an increasing share of the total resources available to the nation towards the rural areas" (para. 1.6), it is also stated that "The emphasis given to rural development will not, however, be allowed to obscure the fact that substantial resources will also have to be spent on developing the towns" (para. 1.52). The expansion of this idea indicates that the government is beginning to appreciate some of the urban growth needs which must be met if the economy as a whole is not to be handicapped. Emphasis is given to decentralization of population growth outside Nairobi and Mombasa, the positive promotion of growth centers around the country, and orderly expansion of necessary social infrastructure at

a rate rapid enough to keep pace with the rise in population (para 1.54). It is nevertheless conceded that Nairobi and Mombasa must continue to expand (para. 3.47). The Plan section dealing with physical planning becomes more specific and demonstrates a growing awareness of the complex processes which make up the urbanization phenomenon. Physical planning is described in three phases: an inventory of existing physical facilities, constraints, and potentials; "an analysis and projection of such dynamic factors as population growth and migration, economic development, technical and cultural change and the rate of urbanization"; and the preparation of a "strategic plan" reflecting all proposed government and private sector physical projects. The last phase is intended to cover the entire range of activity, from major cities and towns selected for intensive growth, to a network of smaller centers designated as development points and administrative/service/social foci, to the development of transport, communication and energy grids, to the areas programmed for agricultural and other resource development.

Growth Centers

Despite this trend toward more comprehensive treatment of physical factors, the Plan admits to certain limitations when it states that "the physical planning process in Kenya has not yet developed to the point at which statements of policy can be made covering all aspects of physical develop-

ment....(although) a satisfactory basis (now exists) for many important decisions" (para. 3.32). Still, urbanization tends to be viewed as a simple process of urban growth, rather than the combination of deep evolutionary changes in social values, motivations, technologies and economic systems which, in fact, constitute its essence. It is accepted that growth will continue in both urban and rural settings to mutual advantage, and therefore that "urbanization....wherever it results from expansion of economic opportunities, is welcomed by the Government as a sign of, and a contribution to, the economic development of the nation". However, excessive growth in Nairobi and Mombasa must be avoided and urban decentralization must be promoted (para. 3.45). The Plan then proceeds to set guidelines for promotion of several selected growth centers and for classifying all urban points in categories of major, medium and minor importance, at least for the near future. Finally, it is stated that given this provisional pattern for urban growth, the Town Planning Department will prepare a long-term work program for producing detailed physical development plans for each growth center, described in the conventional terms of designating land uses and transportation networks. In summary, these Plan statements point to an awakening sense of the deeper dilemmas of the urbanization process, but put forward a program still limited almost entirely to traditional physical planning for urban and regional areas, despite an opening policy declaration that the physical planning proces-

will be carried forward in conjunction with the Ministry of Economic Planning and Development (now Ministry of Finance and Planning) and the operating ministries themselves.

Dispersal of Industry

In the industrialization section of the Plan it is announced that the Government will promote a "wider geographical dispersion of the benefits of industrialization" to urban areas other than Nairobi and Mombasa, and to rural areas as well. New policies and implementing legislation are now being considered in such areas as industrial location, incentives for industrial decentralization, and the promotion of more industrial estates.

Differential Service Needs

The section on housing, health and water indicates that the requirements of rural, semi-urban and urban populations, as well as the differential needs across the income scale in urban centers, are beginning to be realistically considered. Thus the programs put forward are not mere straight-line projections of earlier ones, but the beginning of a more comprehensive examination of people's needs under varying degrees of concentrated settlement. This is a first step toward broadening the concept of urbanization to a range of urban situations, from the metropolis through smaller concentrations to areas where there are no substantial clusterings at all.

Urban Infrastructure

In recent months there has been increasing concern over the problem of planning and implementing urban infrastructure on a coordinated basis, whether for individual projects such as housing estates, hospitals and other government facilities, or for meeting the needs created by surging growth of population in existing urban centers. Most of the trouble arises from the inability of local authorities to plan and prepare the projects required, obtained the necessary financing, implement construction and operate and maintain the completed installation.* Additional problems arises at central government level, primarily because of inadequate communication with the field, among service ministries, and between these ministries and Treasury. The Ministries of Housing, Works and Agriculture (Water Development Division) have sent out circulars, the Town Planning Department and Ministry of Finance and Planning have jointly studied the situation, and an interministerial meeting has been called to develop a concerted attack on this problem. Ad hoc coordinating committees are already at work for a few new urban developments to improve the joint planning and action

* For example, it is estimated that 45 small centers will grow to more than 10,000 population by the year 2000 and will need a comprehensive urban infrastructure, although most lack effective, autonomous local government. Even the larger centers are critically short of administrative and technical staff, and it is unlikely that such people will be available in sufficient numbers for many years.

required for urban infrastructure of all types. It is likely that a permanent coordinating group will be formed at central government level to perform the same function wherever needed. Action is also underway to establish--with external assistance--at provincial levels, available to local authorities for the planning and designing of required infrastructure. It is also likely that interministerial meetings will continue, under the chairmanship of the Ministry of Finance and Planning, to expose ministry representatives to a deeper appreciation of the relations between urbanization and national/regional/local development, so that more fundamental policies on urbanization can be proposed and adopted.

Pollution Control

The question of threats to environmental quality was first raised in 1970 by the Ministry of Natural Resources which called an informal exploratory meeting. At that time the Ministry of Finance and Planning was the only other government representative. Since then, stimulated by the U.N. proposal for a Conference on the Human Environment (June 1972), the government has issued a National Report on the Human Environment (June 1971) prepared through the cooperation of ten ministries, the University of Nairobi, and UNESCO. The Working Committee set up to coordinate this effort, under the leadership of the Ministry of National Resources, is continuing to function as an embryonic agency

for environmental protection, and a plan to create a more formal structure for this purpose is currently being studied. The environmental hazards created by human settlements are a major aspect of the government's increasing concern with environmental protection in general, and it now appears that policies and programs to cope with the wide range of problems in this field will be evolved over the next few years.

The observations on the preceding pages seem to point to two conclusions: First, that the physical problems of urbanization are being attacked on an increasingly comprehensive basis, taking account of broader economic/social elements. Second, that a base of concern and preliminary knowledge is being formed among a small but strategic group in the government. These developments should eventually bring about that fuller appreciation of the nature of the urbanization process which makes possible significant advances in national and local programs. These should be aimed at achieving the optimum relation between urbanization and development on all fronts--social, economic and physical.

THE SCALE AND PACE OF URBANIZATION--PAST AND FUTURE

The 1969 Population Census yielded a national count of 10,942,705 up 26.7 per cent over the 1962 figure of 8,636,263. The average yearly increase during this period

was 3.4 per cent, a rate which would double the total population every twenty-one years.

The number of people in towns with two thousand or more inhabitants was 1,079,908 in 1969, up 65 per cent over the 1962 figure of 660,000. Thus residents of urban areas represented not quite 10 per cent of the population but included almost 14 per cent of the national labor force, 88 per cent of the non-African population, and a large proportion of the country's trained and educated manpower. The average growth of the urban population was 7.3 per cent a year, a rate which would double the number of urban residents every ten years. It is estimated that slightly over half the urban growth was due to rural/urban migration, the rest to natural increase.*

Detailed figures are available only for the ten largest urban centers, and are summarized in Appendix Table I. Several interesting conclusions emerge:

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* It should be noted that the large number of unaccompanied males migrating to urban areas in search of work had, by 1969, produced a sex ratio of 138 males to every 100 females. As many of these males improve their economic situation it can be expected that a high proportion will bring their rural families to join them, accelerating urban growth still further.

(i) These ten centers grew at 6.9 per cent a year, from 6.67 per cent of the national population in 1962 to 8.48 per cent in 1969;

(ii) Almost all the accelerated growth occurred in the two largest cities: Nairobi had a 53 per cent increase in its share of the national total; Mombasa a 7 per cent increase. The share of each of the other eight centers hardly changed.

(iii) Although all but one center showed population increases, Nairobi's share of the group total rose from 46.5 to 55.6 per cent, while that of every other center, but one, declined.

Turning to non-agricultural wage employment, the total climbed from 378,600 in 1964 to 418,500 in 1968. Urban centers employing over one hundred people in such jobs accounted for 226,000 (59.8 per cent) and 295,800 (70.6 per cent), respectively, of the totals for the two survey years. The number of urban centers increased from 19 to 34. The distribution was as follows:

Wage Employment (000)	No. of Centers	
	1964	1968
120 - 160 (Nairobi)	1	1
50 - 60 (Mombasa)	1	1
10 and under 15	2	2
5 and under 10	1	3
1 and under 5	10	12
Under 1	4	15
TOTALS	19	34

Tables II and III present available data on wage employment and earnings for the same centers (with one substitution as in Table I. The principal conclusions to be drawn are:

(i) Wage employment for the group of ten urban centers rose from 2.21 per cent to 2.65 per cent of the national population, and from 56.9 per cent to 64.6 per cent of national non-agricultural employment.

(ii) However, wage employment for the group went up more slowly per year (5.9 per cent) than did population (6.9 per cent);

(iii) Nairobi and Mombasa each experienced a reduction in share of the group's wage employment,

whereas six of the smaller centers gained larger shares. However, Nairobi was the only center to show a significant increase in share of wage earnings (from 63.8 per cent to 67.3 per cent of the group total); most others showed a declining share (especially Mombasa) and the rest only small increases;

(iv) The group's share of national earnings rose hardly at all (from 75.5 per cent to 75.7 per cent), but Nairobi gained in this respect as compared to most of the others;

(v) The proportion of urban population in wage employment fell markedly for Nairobi (and Nanyuki) but rose sharply for six centers and moderately for Mombasa.

Table IV presents a summary comparison of changes in population and wage employment for Nairobi and Mombasa as against the eight other centers, which are so much smaller as to be of a different order of magnitude. Several points stand out:

(i) The two large cities increased their share of the group population from 77.5 per cent to 82.5 per cent, and their share of the national population from 5.17 per cent to 7.01 per cent;

(ii) However, both failed to increase wage employment

as rapidly as the others, their combined share falling from 81.9 per cent to 77.0 per cent of the group total;

(iii) Wage employment as a proportion of population in Nairobi and Mombasa combined, fell from 35.1 per cent to 31.1 per cent, although this was made up of a sharp fall for Nairobi and a small increase for Mombasa. The eight other urban centers combined rose rapidly from 26.6 per cent to 42.2 per cent, while the proportion for all ten remained unchanged at 33.2 per cent.

The pattern which emerges from these shifts in population and wage employment during 1962--1969 seems to be as follows:

1. Urban population grew more than twice as fast as total population;
2. Of the 346,384 increase in the ten largest centers, 90 per cent occurred in Nairobi and Mombasa, with 70 per cent in Nairobi alone;
3. Nairobi and Mombasa increased their share of total population of the ten centers and of the national total as well;
4. Wage employment as a proportion of the national total rose for the group of ten centers, but fell for Nairobi and Mombasa in comparison with the

other eight

5. Although Nairobi's wage employment fell relative to the group, its proportion of wage earnings rose;
6. The proportion of urban population in wage employment fell sharply for Nairobi, but rose moderately for Mombasa and markedly for the other eight centers combined.

Translating this pattern into general observations, population growth is sharply up in urban areas but concentrated mostly in the two largest cities. On the other hand, while wage employment continues to rise in the urban centers, it is lagging behind population growth in the two largest cities. Without knowing the precise size of the labor force in urban areas it is not possible to say how increases in wage employment compare with increases in the labor force. However, it is significant that Nairobi's percentage of population in wage employment has fallen from 41.8 per cent to 33.3 per cent; population increased by 242,492, adding perhaps 70,000 to the labor force, while estimated wage employment went up only 47,200. This accords with direct impressions of substantially higher levels of unemployment and underemployment. In the case of Mombasa, wage employment rose slightly as a proportion of population, with the increase in jobs (18,100) amounting to barely one third of the increase in population (67,498)--this could indicate

no worsening of the unemployment picture. Finally, while the eight smaller centers are growing more slowly, their situation in respect of wage employment is noticeably favorable: while population only went up by 31,394 wage employment rose by 31,700 - about three times the increase in the labor force. It may be concluded that Nairobi is experiencing the brunt of rural/urban migration and is unable to create employment rapidly enough. This is also apparent from the population growth rates in Table I which, for most centers, are in the range of 0-40 per cent higher than the national average, compared to Nairobi's 180 per cent differential.

The broad conclusion emerges that urbanization in Kenya is creating the most severe problems in Nairobi and Mombasa, in terms of very large requirements for all kinds of infrastructure, while Nairobi is also faced with rapidly increasing unemployment.

In a recent projection of urban growth carried out by the Town Planning Department, it is calculated that by the year 2000 there will be 7.76 million people living in urban centers of over two thousand, out of a total population of 24 million. This would represent nearly an eightfold increase in the urban population in thirty years, yielding an urban population of 32.3 per cent, in contrast with the low 1969 figure of 10 per cent. There would be nine centers with over 100,000 (compared with two at present), about 45 with between 10-100,000 (compared with only nine in 1969),

and some 47 between 4.5-10,000. Nairobi would reach 3.2 million people and Mombasa 1.7 million.*

As everywhere, the surging growth of urban centers in Kenya is the result of advantages perceived by various groups: manufacturers, businessmen, traders, providers of services, consumers, migrants, and the public sector. These advantages are not merely economic, though that is undoubtedly the primary force; there are also social and political. The economic advantages, and frequently the socio-political ones as well, have beneficial repercussions on the entire system, extending beyond the urban centers. Unfortunately, these motivations and benefits are not generally understood even though, as pointed out in the preceding section, the government concedes that urbanization will inexorably continue and should to some extent be supported to further the nation's economic welfare. There is still a strongly-felt rivalry between the urban and rural worlds, and it seems generally taken for granted that if urbanization exceeds some (unstipulated) rate of growth, this will be at the cost of some rural growth. It is therefore held that government must intervene to slow down urbanization

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* "A study of the Possible Distribution of Urban Growth in Kenya as a Framework for Physical Planning". Town Planning Department (September, 1969 and as revised June, 1971).

here, speed it there, initiate it still elsewhere, on the basis of an analysis (not yet developed) which will indicate where and when this should be done. The only certain thing about such a policy is that it will hinder general economic progress, since the government can never know as well as the thousands of individual decision-makers where there is a net economic gain in transferring to, or starting up in, an urban setting. Nevertheless, government does have a limited role in guarding social objectives against damage from urbanization processes, since the private sector omits social costs from its calculations.

Apart from the possible modifications to the urbanization process in Kenya which might come from direct government action, what other major influences can be identified, at least for the medium term, as likely to occur from significant programs affecting key variables in that process?

Agricultural development is a fundamental and permanent objective, pursued through a multitude of programs aimed at increasing output, reducing costs, and improving transport and marketing. Over-all policy is to raise income per capita and to maximize crop and livestock production on all economically arable land, which in turn is expected to maximize employment under prevailing technologies. However, increasing employment per unit of land is not among the objectives and there is no special attention being given to labor-intensive techniques.

In fact, there is a remorseless trend toward more capital-intensive production methods. The predictable outcome is that increasing outputs will be produced with constantly decling inputs of labor, causing many thousands of persons to become redundant in basic agricultural employment each year. This will be true even if there is a net gain in total rural employment. There will be inevitable migration to the urban areas, under the joint pressures of rural push and urban pull.* There are now over ten million people in rural areas, increasing at 3.4 per cent per year. Assuming this rate did not change, and there were no migration, the rural population would rise to 26 million by the year 2000, an increase of 16 million. However, at the current pace of rural /urban migration some 3.5 million would leave the rural sector, initially at the rate of about 80,000 a year, increasing to more than 140,000 a year in the final phase. The

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* Unless there are massive changes brought about by deliberate government action, the pressure of excessive rural population growth on all the land suitable for agriculture will create unbearable economic conditions in the rural sector. For example, the Town Planning Department has recently estimated that Western Kenya can support a farming population of no more than 3 million at an income level of 100 Kenyan pounds a year, under favorable farming conditions. In 1969 the population of this area had already reached 3.4 million - a clear case of rural push.

3.5 million, added to the natural increase of 2.5 million in the urban areas, would swell the present one million urban population figure to over seven million by the year 2000 (while holding the rural population to 22.5 million, representing a net annual increase of about 2.8 per cent for the rural areas). Such rural/urban migration is an inevitable feature of the national development process - and there are no practicable measures that can stem it appreciably. This pattern of migration must be accepted, and urbanization policies must provide for satisfactory solutions to the many dilemmas it creates.

It is stated in the 1970/74 DevPlan that "rural development has comprised a key element in Government action (since Independence) but will in this Plan represent the basic development strategy" (para. 6.1). By "rural development", the Plan means intensive concentration on all governmental activities in the rural areas. The goals are to improve coordination and effectiveness, to provide additional inputs, to identify local needs and to organize collective action (primarily through improved communication, education and the work of development committees, operating at all levels). This program treats agriculture as just one of many sectors and programs--the simultaneous development of such things as roads, water supplies, housing, training centers, rural small-scale industries, and new communities

is regarded as equally vital. The broad objective is to bring about a general rise in the quality of rural life, economically and socially, and thus to improve conditions for the 90 per cent of the population that lives in rural areas. For 1970/71 the program was launched in six pilot areas; in 1971/72 it is being extended to another eight; and from then on the plan is to apply it throughout the country as rapidly as possible. To the extent that it succeeds in visibly improving the conditions of rural life this program may have a mild restraining effect on rural/urban migration. It is unlikely to do more, since a primary motivation for that migration is the differential between urban and rural wages, which will not appreciably affected by rural development programs. Another strong motivation for migration is lack of either land or employment, and given the population trend and limited opportunities for adding to agricultural land, these push elements will continue to have significant influence.

What will be the likely effect of programs for population control on the urbanization process? Again, as in the rural development program, the effect can hardly be more than quite moderate. This is true under any conditions for the short term and is also true for the long term unless the government achieves a dramatic acceleration of population control. This may be possible but would require an enormous step-up in family planning programs, including such

necessary components as additional facilities, very large build-up of staff, national motivation and education campaigns, intensive administration, and massive financing, with external help. While Kenya was the first country south of the Sahara to adopt a family planning program, this is far from being a comprehensive approach to population control. It is offered on an entirely voluntary basis as part of the maternal and child health program in the Ministry of Health, without an associated public education campaign. Statistics on the impact of the family planning program are sketchy, since it is not yet known how many repeat visitors to the clinics are practitioners of birth control. Even so, the level of program activity would have to reach eight times the present one and keep growing rapidly to reduce the net annual population growth from 3.4 per cent to 2.9 per cent in ten years. And this assumes no further decline in mortality rates, which would, of course, drop below present levels. It is hardly likely, therefore, that urbanization pressures will lessen significantly as a consequence of slower population growth. The effect on average family size will probably also be modest, since it is believed the majority of acceptors are women who have already had six or seven children and now want to stop, having become convinced that the children will reach maturity due to better health care and nutrition. The desire for a smaller family will take even longer to become part of the cultural values, as

the possibility of achieving higher individual standards of shelter, food and education is gradually understood.

Decentralization and regional planning have already been referred to as part of government policy to assist with development, both in terms of more rapid economic growth and more equitable geographical distribution of incomes. But what are the prospects for these aims being realized, and what would be their likely impact on the urbanization process? First, decentralization is frequently urged in developing countries because the primate cities are thought to be absorbing a disproportionate share of national income and public sector expenditure, and because they are considered to act as magnets which distort "normal" population movements. There is no empirical basis supporting these arguments. The available evidence in fact points the other way, suggesting that the economic efficiency of cities continues to increase with size, and that diversion of resources to promote regional equalization actually reduces economic growth for the nation below what it would be if resources were allowed to go where marginal returns were highest. In economic terms this is not a surprising conclusion, but it does go against the grain of many national developers who feel that growth should somehow be equalized throughout the system. Yet possibilities do exist for decentralization which will be competitive with additional inputs in the major centers--in for example, the formation of

of a new urban complex through the concurrent development of a number of projects--industrial, service, governmental--which interact to produce significant external economies and develop a self-generating momentum. As with a nuclear bomb, the process requires a critical mass and a critical velocity to trigger the self-sustaining explosive chain.

But the conditions for this are rigorous: as one analyst has put it, "there must be a sufficient variety of activities that unexpected relations and complementarities can be discovered and efficient specialization is possible; the pool of skills must be sufficiently large and varied to permit change and adaptability; life for the upper classes must be sufficiently varied and interesting to keep the best men from fleeing provincial dullness; local markets must become large enough to attract their own suppliers; the demand for some services must become large enough to justify some major forms of infrastructure such as large airports or specialized financial services".* The same author claims that the critical masses or thresholds for these variables are simply not known, especially for the subtler forms of human interaction. This means that the potential benefits of external economies for a group of projects intended to promote urbanization in a new area can only be guessed at,

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* William Alonso. "Urban and Regional Imbalances in Economic Development". Economic Development and Cultural Change (October, 1968).

with extremely costly results to the nation if the guess is wrong. One may ask, for example, whether the economic and social returns from the promotion of Brasilia will ever justify the enormous direct public and induced private investments there, at the time they were initiated, in comparison with the returns which equivalent alternative investments would have yielded, say, in agricultural development. On the other hand, a nation determined to scatter the urbanization process may fortuitously set off the right chain of events by promoting and even subsidising particular packages of projects in selected locations, but it is not likely that this will happen often. The general picture in developing countries is that of urban concentration in the early staages, with geographical equalization getting started only as the economy matures. During the early stages regional disparities increase as primate cities grow faster than other urban centers. Later, as regional activity begins to pick up, the primate cities continue to grow, but secondary centers grow faster.* Several studies concur, in fact, that urban concentration is a necessary condition for economic development in the early stages, and a comparison of developing countries reveals that those with most rapidly grow-

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* S. El Shaks. "Development, Primacy and the Structure of Cities". (Unpublished Ph.D. dissertation, Harvard University, 1965), cited in Alonso, op. cit.).

ing largest city achieved the most rapid increases in per capita GDP.

One is left with the impression that decentralization policies and programs can only be justified on political grounds, or by a widespread, intensive desire for economic growth to be more equitably distributed. Such motivations may be sufficiently strong to discount the probable national economic losses, even if their existence and size were generally known. The planning function is helpless here, since there is presently no way of measuring how much growth in national product would need to be sacrificed for a particular gain in the equity structure. Another tantalizing unknown is whether growth performance might actually be higher in the long run if structural changes aimed at continous improvements in equity were vigorously pushed. At present, nevertheless, the burden of proof would seem to rest with those who favor urban disperal--the evidence thus far suggests that urban concentration yields the highest rates of national growth, even though (or perhaps because) regional differences become greater during the first phase of this process.

If the preceding comments are an accurate estimate of the relation between urban concentration and economic development, Kenya's heavy stress on decentralization is coming too soon. The medium and smaller centers will experience some build-up of industry, for the most part related to

agricultural processing and the growth of surrounding consumer markets, and will also have the service and government activities appropriate to their functional pattern and rate of development. Yet under Kenyan conditions, with a long head-start by Nairobi and Mombasa, coupled with quite good transport systems, it will only be the extraordinarily profitable manufacturing enterprises which can gain by locating in a secondary center. It is more likely that most of the population concentration outside these primary cities will occur in a large number of small trading-commercial-government service centers ranging to a maximum of about 10,000 population. In other words, the coalescene of rural populations into simple types of communities will be much more prevalent than the development of such communities and small towns into medium-size cities having a full range of urban functions. Thus, the decentralization objective may be a will-o-the-wisp, despire serious government intent to achieve it. If that is so, the actual build-up of infrastructure in the designated "growth centers" may prove to be much less productive than expected, and certainly less productive than the allocation of equivalent resources to other development programs.

The impact of regional planning, on the other hand, is more safely predictable as a constructive element in urbanization, as well as in promoting economic/social development in general. Assuredly, an expansion of the joint physical/

economic planning process now operating in some provinces will clarify growth potentials in each province, and improve both private and public decisions on project locations and timing. Further, the emergence of integrated development plans for each province will promote more rapid progress in the various sector programs, leading to earlier improvements in the general welfare and an acceleration of small urban developments. Finally, it is conceivable that the intensive work along such lines would reveal some situations in which a potential growth center would have a good chance of being pushed "over the threshold" by a concerted public/private program, so that perhaps some part of the decentralization effort might be undertaken with less risk than would be involved if the detailed information were not available.

In contrast, the increased scope being given to integrated economic/physical planning in central government, which will gradually be incorporated in regional and local planning, is unlikely to favor a deliberate decentralization program in the foreseeable future, if the analysis and assumptions employed follow the general lines set forth in this paper. The intensive urban growth study now in progress for Nairobi will also strengthen the trend toward concentration in the primate city because it will presumably justify the financing of larger capital and operating programs for Nairobi and will make possible the preparation of

plans for the city on a continuing basis. Nairobi has the additional advantage which comes to a city with its resources and progressive administration, in that it has already achieved a fair degree of competent staffing by Kenyan officers and technicians who are participants in the planning effort. They may be expected to have a future influence on public decisions, which will not be the case in those communities and regions where planning is, for the present, wholly a product of foreign technical assistance.

ALTERNATIVES FOR KENYA

Broadly, two general policy lines present themselves. The first is to continue in the direction laid down in the 1970/74 DevPlan: "strenuous efforts to reduce the urbanization problem by holding more people on the land....intensively promoting a few growth centers to avoid the primary cities getting too far ahead....reducing regional income and service inequities....restricting growth in the primary cities." The gist of the discussion in the preceding pages is that such an approach is premature for Kenya--it belongs to a later phase of the country's economic development.

The second policy line would be to allow urbanization to proceed where most private and many public interests would see the greatest benefits for their particular activities i.e., in the already existing larger centers. This would have to be more than a permissive policy, however,

since infrastructure installation and operation would have to be kept up to certain minimum standards so as not to restrict urban growth nor allow undesirable conditions to accumulate. This would require central government support, both financial and technical/administrative, on a guaranteed, continuous schedule, because even the primary centers are not able to provide all the inputs unaided. In this connection, it can well be argued that central financial support is to a large degree justified by the national character of the existing major cities since their more efficient functioning and accelerated performance distribute economic/social benefits throughout the system.

Whichever policy line may be followed (and it is likely to be the first, because the known political advantages will outweigh the unknown economic losses) there should be intensive and continuing research on the key aspects of urbanization, as a guide to improved policies and programs. Such research should explore the less obvious but nonetheless vital impacts of urbanization on social values and behavior. There is also urgent need for more coordinated and definitive action to support urbanization, especially to see that planning stays far enough ahead, that projects are properly prepared, that financing is available, and that implementation is timed and coordinated to best advantage. Theoretically this could be done through the Ministry of Local Government, but given the traditions of that agency,

heavily influenced by its colonial traditions, and its history of inadequate performance, it would be highly preferable to consider the formation of a new Ministry of Urban Development to tackle the task. Such a ministry would work in close liaison with the other ministries concerned: Lands, Agriculture (Water Development Division), Housing, Works, Power and Communications, Commerce and Industry, Wildlife and Tourism, Health, Education, Local Government, and Finance and Economic Planning.

SOME GENERAL OBSERVATIONS WITH RELEVANCE FOR KENYA

Direct observation of development planning in Colombia, Brazil, Mexico, Spain and Kenya, and a study of plans for many other countries leads the writer to conclude that urbanization is not yet understood as a comprehensive process and therefore most plans lack specific policies and programs for it. (Unfortunately, the same statement can be made about all but a handful of the developed countries). When urbanization is mentioned it is almost invariably categorized as an undesirable development which must be checked in the interest of national, and especially rural, growth. The many functional elements which enter into urban growth (water, buildings, housing, power, industry etc.) are considered in programs of the particular ministries concerned, not as an integrated development package for individual centers.

A compelling reason for giving much more attention to

urbanization in developing countries was put forward in The Economist of December 27, 1969, featuring a preview of the 1970s. Forecasting tremendous increases in rural/urban migration in all developing countries, the article raised the specter of "real, red, raw urban revolution" if employment is not kept in some acceptable relation to the soaring urban labor forces.

The same point was made more fully by Barbara Ward in The Economist of December 6, where she concluded that the dismal condition and outlook prevailing for urban centers in developing countries was not going to be automatically corrected: "So long as the cities are regarded as a by-product of the total action of economic and social forces in a society and so long as these forces are essentially out of balance--too many people, too few jobs, too little capital, too much unskilled labour, stagnant farming, high cost industry, small markets, big technologies--the cities are bound to become the areas where all the contradictions meet, clash and finally explode".

As more attention is given to improved development of urban centers it is also clear that this should be in the form of comprehensive economic/social/physical planning which embraces the metropolitan region--not in the limited land use/transport program type of planning that has thus far been so unsuccessfully undertaken in most cities of the developed nations and many in the underdeveloped. National

urban development strategy should, as stated in the World Bank's Annual Report for 1970, "aim at optimizing output and employment in a given area ana providing basic urban works and services at lowest cost". To put it more broadly, a balanced strategy is needed for urban development so that the growth of urban areas can be kept in close harmony with national development policies.

Land and housing present special problems in urbanization. More often than not the land required for efficient urban development is not accurately estimated in advance of need, so land assembly and acquisition become complex and very expensive processes. And housing, which could make enormous contributions to urban progress, instead typically takes the form of public programs that are far too small and show an absence of creative solutions for the low-income groups. For some peculiar reason housing is thought of as "unproductive," a view which ignores the impressive direct and indirect effects of housing investment on industrial growth and employment, as well as the positive impact on health and productivity (now confirmed by studies) of occupants formerly living in substandard shelters. The costs of not providing adequate housing, even if it be the stop-gap solution of the site-and-service scheme, are not considered. Yet they must be very substantial indeed, if regarded in terms of the additional health and public safety measures needed, and the value of output foregone through non-invest-

ment in housing and lowered worker productivity.

It seems that attention is directed more to the difficulties rather than the potentitals of urbanization. Progress might come more radily if the challenge of rapid urban growth were seen as a series of great opportunities disguised as insoluble problems.

APPENDIX TABLE I

Population: Ten Largest Centers, 1962 and 1969

Largest Centers	Census Population		Annual Growth %	Percent of Total		Percent of National	
	1962	1969		1962	1969	1962	1969
Nairobi	266,794	509,286	9.6	46.5	55.6	3.09	4.75
Mombasa	179,575	247,073	4.6	31.2	26.9	2.08	2.26
Nakuru	38,181	47,151	3.1	6.6	5.1	0.44	0.43
Kisumu	23,526	32,431	4.7	4.1	3.5	0.27	0.29
Eldoret	19,605	18,196	-1.1	3.4	2.0	0.23	0.17
Thika	13,952	18,387	4.0	2.4	2.0	0.16	0.17
Nanyuki	10,448	11,624	1.6	1.8	1.3	0.12	0.11
Kitale	9,342	11,573	3.1	1.6	1.3	0.12	0.11
Nyeri	7,857	10,004	3.5	1.4	1.1	0.09	0.09
Malindi	5,818	10,757	9.2	1.0	1.2	0.07	0.10
Totals	575,098	916,482	6.9	100.0	100.0	6.67	8.48
Total Nation	8,636,263	10,942,705	3.4	--	--	100.00	100.00

Source: Population Censuses, 1962 and 1969.

APPENDIX TABLE II

Non-Agricultural Wage Employment: Ten Largest Centers 1964 and 1968 Actual; 1972 and 1969 Estimated
(Employment Figures in Thousands)

Largest Centers	Non-Agricultural Wage Employment 1964	1968	Percentage Increase	Annual Increase %	Wage Employment* 1962	% of Total	1969	% of Total	Employment/Population 1962 %	1969 %
Nairobi	124.1	151.3	21.8	5.1	111.8	58.5	159.0	55.2	41.8	33.3
Mombasa	49.6	59.9	20.9	4.9	44.8	23.4	62.9	21.8	25.0	26.8
Nakuru	10.4	14.2	36.4	8.1	8.8	4.6	15.3	5.3	23.0	32.0
Kisumu	11.3	15.2	34.5	7.7	9.6	5.0	16.4	5.7	40.8	53.5
Eldoret	6.7	9.5	41.8	9.1	5.5	2.9	10.7	3.7	28.3	63.3
Thika	4.1	6.1	48.5	10.4	3.3	1.7	6.7	2.3	23.5	37.3
Nyeri	2.5	5.3	112.0	21.0	1.6	0.8	6.4	2.2	19.8	65.0
Kericho	1.7	4.3	153.0	26.0	0.9	0.5	5.4	1.9	12.1	49.7
Kitale	3.2	3.6	12.5	3.0	3.0	1.6	3.7	1.3	32.4	32.3
Nanyuki	1.9	1.7	-10.5	-2.5	2.0	1.0	1.7	0.6	19.2	14.8
Totals	215.5	271.1	25.7	5.9	191.3	100.0	288.2	100.0	33.2	33.2
Total Nation	378.6	418.5	10.5	2.5	360.0	100.0	429.0	100.0	4.4	3.[illegible]
Percent of Nation	56.9	64.6			53.2		67.2			
Percent of Nat'l Pop.					2.21		2.65			

*Estimated from 1964 and 1968 Employment Surveys.

Source: Statistics Division, Ministry of Finance and Planning.

APPENDIX TABLE III

Non-Agricultural Wage Earnings: Ten Largest Centers 1964 and 1968 Actual; 1962 and 1969 Estimated (Earnings in Millions of Kenyan Pounds)

Largest Centers	Earnings		Percentage Increase	Annual Increase %	Estimated Earnings				As Percent of Nat'l Non-Agricultural	
	1964	1968			1962	% of Total	1969	% of Total	1964	1968
Nairobi	44.6	67.7	51.8	11.0	35.3	63.8	75.2	67.8	49.3	50.5
Mombasa	14.1	18.5	31.2	7.1	12.3	22.3	19.8	17.8	15.6	13.9
Nakuru	3.1	4.1	32.2	7.2	2.6	4.7	4.4	4.0	3.4	3.6
Kisumu	2.4	3.5	45.7	9.9	1.9	3.4	3.9	3.5	2.7	2.6
Eldoret	1.5	2.2	46.6	10.0	1.2	2.2	2.4	2.1	1.7	1.6
Thika	0.9	1.3	44.5	9.7	0.7	1.3	1.4	1.3	1.0	1.0
Nyeri	0.6	1.2	100.0	18.9	0.4	0.7	1.5	1.3	0.6	0.9
Kericho	0.3	0.9	207.0	31.9	0.1	0.2	1.2	1.1	0.3	0.7
Kitale	0.6	0.8	33.3	7.4	0.5	0.9	0.8	0.7	0.6	0.6
Nanyuki	0.3	0.4	33.3	7.4	0.3	0.5	0.4	0.3	0.3	0.3
Totals	68.5	100.7	46.8	10.1	55.3	100.0	111.0	100.0	75.5	75.7
Total Nation	90.3	134.0	48.3	10.4	72.5	--	139.4	--	100.0	100.0

Source: Statistics Division, Ministry of Finance and Planning

APPENDIX TABLE IV

Population and Wage Employment: Ten Largest Centers, 1962 & 1968
(Earnings in Millions of Kenyan Pounds)

Largest Centers	Population						Wage Employment (Estimated)							
	1962	% of Total	1969	% of Total	% of Nat'l 1962	% of Nat'l 1969	Est. 1962	% of Total	Est. 1969	% of Total	% of Nat'l 1964	% of Nat'l 1968	% of Center Population 1962	% of Center Population 1969
Nairobi	266,794	46.5	509,286	55.6	3.09	4.75	111.8	58.5	159.0	55.2	32.7	36.0	41.8	33.3
Mombasa	179,575	31.2	247,073	26.9	2.08	2.26	44.8	23.4	62.9	21.8	13.1	14.3	25.0	26.8
Total	446,369	77.5	756,359	82.5	5.17	7.01	156.6	81.9	221.9	77.0	45.8	50.3	35.1	31.1
Other 8	128,729	22.5	160,123	17.5	1.50	1.47	34.7	18.1	66.4	23.0	11.1	14.3	26.6	42.2
Grand Total	515,098	100.0	916,482	100.0	6.69	8.48	191.3	100.0	288.3	100.0	56.9	64.6	33.2	33.2

Source: Appendix Tables I, II, III.

Rural Development and Urban Growth

by

John Gerhart

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SUMMARY

Rural development programs in Africa will not by themselves stop the flow of migrants to urban areas. Nevertheless, for a variety of reasons they are a crucial part of any urban growth strategy and may, in the long run, lead to a sounder and more balanced urban structure. Recent evidence suggests that even in the short run, rural development programs represent an efficient way to create employment and build a base of purchasing power on which future growth of the modern sector depends.

AN OUNCE OF THEORY

What determines the rate of rural-urban migration? The existing state of knowledge of rural-urban links is at best imperfect and most views are based on isolated case studies, general impressions, and common sense. Consequently, any opinion must be a qualified one until further research gives empirical backing to existing theories. Michael Todaro has given a recent summary of available knowledge and theory on the economic motivations for migration.[1] He and other writers such as Walter Elkan postulate that the decision of an individual to migrate from a rural to an urban area is based largely on two factors: the gap between urban and rural real incomes, and the probability of finding a job. Thus, although an urban job may pay several times as much as rural

employment, migration may be small if job opportunities are few. On the other hand, if the age differential is great enough, it may be in the self-interest of the individual to seek employment even when the probability of finding it is low. How long one is able to remain in the city seeking work will depend on savings as well as contacts and relatives who are able to maintain the job seeker over a period of months. At any one time there is likely to be a floating population of job seekers who try their chances for varying periods, then return, if unsuccessful, to the rural areas. Under these circumstances, migration is likely to be highly selective, since education and family or tribal connections will determine in large measure the probability of finding a job. Migration may also be seasonal, with individuals coming into the city in the slack season to look for jobs or to engage in casual employment and returning home in the peak agricultural seasons to help with planting and harvesting.

The implication of this interaction of forces on migration is that a completely urban solution to the urban unemployment problem is unlikely to succeed. In fact, attempts to increase urban employment may also lead to increases in urban unemployment since, by raising the number of jobs available, a larger number of migrants are attracted into the city. The system operates something like a lottery: the rate of rural-urban migration (or the number of bettors) can be increased either by raising the urban wage level

(increasing the value of the lottery prize) or by raising the rate of creation of new jobs (increasing the number of winning tickets). Given this situation, a strong income policy, holding incomes in the urban sector constant, may be as important to migration per se as an increase in rural incomes, even though the latter affects a far larger number of people. On the other hand, an increase in urban wages--as Todaro points out--tends to create unemployment in two ways: first, by encouraging employers to conserve on labor, and second, by attracting more job seekers through an increase in the urban-rural wage differential. A combination of an incomes policy and rural development, together with manipulation of other policies such as the pricing of agricultural products and inputs, is essential to reduce the gap between urban and rural incomes.

Unfortunately, the income gap has grown wider over the years. The average earnings of African workers in the non-agricultural sector in Kenya rose from L97 in 1960 to L180 in 1966 (an annual rate of 11 per cent) while estimated family farm income grew from L57 to L77 (a rate of only 5 per cent).[2] Unless minimum wage rates of unskilled workers in wage employment are at least roughly equivalent to average farm incomes, the incentive for continued migration will remain.

The pattern of rural-urban migration is further complicated by the special problem of school-leavers and their

attitudes toward wage employment and manual labor. Stated briefly, the numbers and expectations of school-leavers have far outstripped the available job opportunities, and the nature of formal education has not prepared students for rural life. Prior to independence, attempts to teach agriculture and practical subjects in school were viewed (often correctly) as attempts to restrict African political advancement. Only recently, as the employment situation has steadily worsened, have parents become concerned with the teaching of practical skills leading to self-employment. The recent interest in village polytechnics (for primary school leavers) and institutes of technology (for secondary school leavers) reflects this shift in attitude. George Gwyer points out that the formal education system's orientation toward wage employment affects rural development in two ways:[3] first, through its effects on aspirations, it reduces the supply of labor to agriculture and secondly, by directing scare investment funds into education, it reduces the amount of investment available to create on-farm employment through the use of improved material inputs. At present it appears unlikely either that the attitudes of school-leavers will change or that the formal education system will be significantly revised to relate to a rural environment. The growing number of school-leavers reluctant to accept on-farm employment is likely to be a key feature of the rural-urban migration picture for some time to come.

THE TURN TO RURAL DEVELOPMENT

In spite of the attitudinal problems mentioned above, African countries are increasingly focusing on rural development as a major key to dealing with urban unemployment. This interest stems from two principal sources: a belief that the 80 to 90 per cent of the population living in the rural areas deserves a greater share of national development, and a realization that jobs in the industrial sector are increasing more slowly than GDP, the population, or the number of school-leavers. The slow increase in employment is due to a number of factors, including increasing productivity as workers become more experienced, economies of scale in production, shifts toward labor-saving technologies as urban wages rise, and difficulties in moving from import-substitution to export-oriented industries. Kenya provides an example: though GDP has grown at an impressive rate of almost 7 per cent per annum since 1964, employment (at least outside the government service) has remained virtually stagnant. The Development Plan 1970-74 estimates the adult labor force will grow by 925,000 from 1968 to 1974, of whom an estimated 230,000 will find non-agricultural employment. The remaining 695,000 must be absorbed into the agricultural sector. As we will discuss below, the rural sector has the potential for absorbing this employment, providing it receives the necessary investment and is guided by appropriate policies.

The impending employment crisis was brought home to

government by the sudden appearance of large number of school-leavers. In March, 1966, a remarkable little book entitled After School What?, published by the National Christian Council of Kenya, focused attention on the school-leaver problem.[4] In December, 1965, 148,000 students completed primary school. Ninety-two thousand of these had no prospect of further education of any kind and only an estimated 3500 could find urban wage employment. Each year since 1965 the number of school-leavers has grown. In 1972, only 21,000 of 180,000 primary school-leavers will gain entry to government secondary schools, and even secondary school-leavers will be largely unable to find wage-paying jobs.

What, the Christian Council report asked, could these school-leavers do? The answer was not hard to find. Further investment in the urban sector, however important in its own right, will not solve the employment problem for the reasons mentioned above. The only prospect for the greater number of school-leavers lay in the rural areas--either as self-employed farmers or in rural service occupations. In October, 1966, the Kericho Conference on Education, Employment, and Rural Development reached the same general conclusion.[5] It was useless, the conference members said, to exhort school-leavers to go back to the land unless income-generating opportunities in the rural areas were enhanced. Investment in the rural sector was the best alternative to

widespread urban unemployment. Guy Hunter summarized the arguments for giving priority to agricultural development:

1. Agriculture's capital-output ratio is lower than industry's;
2. Investment in agriculture creates a base of purchasing power for local manufactured goods;
3. Rural development affects the bulk of the population, a fact which is politically as well as economically important;
4. In Kenya's case, the main cash crops (tea,coffee, cotton, pyrethrum, and horticulture) earn foreign exchange vital to the urban sector itself;
5. Investment in the rural sector diminishes the differential between urban and rural incomes, which reduces the flow of labor to the towns;
6. Agriculture is labor intensive in a situation where unskilled labor is in surplus.

Hunter concluded:

> The argument of Hirschman (for creating imbalance by rapid development of a leading sector) drawn from the South American situation, may seem applicable to East Africa only if the leading sector is the agricultural one.[6]

In its conclusions, the Kericho Conference called for a pilot program in selected areas of the country to test new

approaches to rural development. This program, subsequently called the Special Rural Development Program, was officially authorized in January, 1970, and implementation of five area programs began in January, 1971. Even before that, however, rural development had become the watchword of development in Kenya. The Development Plan, 1970-74 states that "the key strategy of this plan is to direct an increasing share of the total resources available to the nation towards the rural areas."[7] Under the Plan, most government departments placed increased emphasis on the rural areas, including even a series of demonstration rural housing projects by the Ministry of Housing. Unfortunately, as the following table shows, expenditures on agricultural services--the heart of rural development efforts--have declined over the past nine years as a percentage of the total government budget.[8]

Central Government Expenditure, Recurrent and Development

Financial Year	Agriculture and Veterinary		Total
	Pounds million	Per cent	Pounds million
1962	10.52	18.6	56.45
1963	14.23	22.0	65.86
1964	12.74	18.1	70.54
1965	11.09	15.4	77.52
1966	10.49	12.4	84.88
1967	11.70	12.4	94.57
1968	13.54	12.9	104.98
1969	11.59	9.5	121.85
1970	11.52	7.4	155.85

New investment programs in livestock, tea, sugar, and other commodities now being prepared may reverse this

trend. Some other important rural development programs include village polytechnics for training of school-leavers, rural industrial development centers for promotion of small-scale industries, a national water supply program, a reorganization of the agricultural extension services, and a national literacy program.

WILL RURAL DEVELOPMENT WORK?

Will the increased emphasis on rural development stem the flow of migrants to the urban areas? In view of the current disparities in urban and rural incomes, the answer for the immediate future is almost certainly "no". In Kenya, the minimum wage in urban areas is 160/- a month and many workers earn considerably more. Rural labor, when work is available, earns two to four shillings a day or an average of perhaps 40/- a month. In addition, most urban workers also have rural holdings from which they derive at least part of their food requirements. Allowing for wide variations--from thousands of people virtually outside the money economy altogether, to others earning thousands of pounds a year from farming--if average earnings are only one quarter or less of urban wages, we may be fairly sure that those who can secure wage-paying jobs of any kind will continue to take them. According to the theory advanced earlier, the slow growth in urban employment (plus considerable rural income growth) has probably kept the flow to the cities from

increasing even faster.

Even if rural development programs cannot stop the rural-urban flow, they may well represent the nation's best employment investment. Recent analyses of the employment effects of the "green revolution" in Asia show that the new high-yielding varieties of wheat and rice have appreciably increased labor absorption in the rural areas.[9] These improved varieties need more labor per acre though not necessarily per unit of output. Phillipine data contrasting improved and local varieties showed:

	Man-days/ Hectare	Man-days/ Ton
Average of six studies involving improved rice	79.4	20.2
Average of three studies involving local rice	54.0	21.2

Moreover, the production and marketing of seeds, fertilizer, chemicals, machinery, and other inputs associated with the new grain varieties have created extensive new employment in urban areas themselves, as well as in rural service centers. The increased production of the improved grains has also served to cut inflation (most notably in Indonesia) and to increase rural purchasing power for urban consumer goods. These favorable effects, however, will be greatest, several authors argue, where they are concentrated on the labor intensive "Japanese and Taiwanese models".[10] In those areas where large landowners undertake the new technologies, as in

parts of India and West Pakistan, labor extensive methods are possible and the net effect may be to push people off the land. An example of this phenomenon closer to Kenya is taking place in Ethiopia, where landowners, realizing the benefits of using the new inputs, are mechanizing their operations and pushing tenant farmers off the land.

A recent analysis of employment and production data from Kenya's farming sector reveals the considerable differences in intensity of farming on small-and large-scale holdings.[11] High density (small-scale) settlement schemes provided jobs for 90 men per one thousand acres as against 38 jobs per one thousand acres for large farms. Gross output per acre also varied inversely with farm size, ranging from 635 shillings per acre for settlement plots of less than ten acres to 98 shillings per acre for farms over fifty acres. Land was farmed more intensively on smaller holdings in spite of poorer access to farm services and credit by the small farmers and a decidely lower level of management skills. With improved availability of extension advice and credit, the report concludes, very high levels of output per acre can be achieved on small holdings. The report points out that small-holder crops such as tea, coffee, pyrethrum, maize, and dairy are considerably more labor intensive than large-scale mixed farming of wheat and beef.

What is the relevance of these figures to Kenya's urban growth? The point is that, with relatively small invest-

ment per unit, considerable intensification of output and employment is still possible in small holder agriculture. Hans Ruthenberg, in his study of agricultural development in Kenya, estimated that investment in services to peasant farmers on their own holdings produced a return in additional marketed produce of 29 per cent.[12] He contrasted this with an estimated return of 18 per cent on irrigation schemes and 9 per cent on low-density (large-scale) settlement schemes. The reason for these differences are not difficult to find. Small-holders do not require basic infrastructure such as housing, water supplies, and on-farm roads. Moreover, they often have surplus capacity (either uncleared land or underutilized labor) which can be brought into production if short-term constraints of working capital can be overcome. Seasonal labor constraints, frequently a bottleneck to increased production, can be modified through a judicious use of mechanization, weed killers, or by employing additional casual labor.[13] Moreover, some crops such as tea or pyrethrum or dairy cattle, have relatively stable labor demands throughout the year. The very fact that peasant agriculture has often been ignored in Africa means that the introduction of new technologies can bring substantial returns for a small investment per unit, both in income and employment.

An example may be illustrative. The recent ILO report on employment in Ceylon estimates that one acre of tea provides approximately 1.25 man years of employment per annum.

The Kenya Tea Development Authority estimates a cost of about 350 shillings to establish one acre of tea, not including opportunity costs for that land during the three years it takes to come into production. Taking a (generous) opportunity cost of, say, 300 shillings per year per acre (a net of ten bags of maize under average husbandry), the total cost of creating a job in tea is about 1000 shillings or L50. This compares with estimates of Ll500 to L3000 to create a job in industry--30 to 60 times as much per job. Given the political as well as economic and social dangers of unemployment, these orders of magnitude cannot be ignored. In spite of the complexities and difficulties of rural development, most specialists would agree with W. Arthur Lewis's statement that "expenditure on bringing new knowledge to peasant farmers is probably the most productive investment which can be made in the poor countries."[14]

RURAL DEVELOPMENT AND URBAN GROWTH

One might go further and argue that rural development is important, not just for national development, but for the development of the urban sector itself. Some of the reasons have been set out above: agriculture earns foreign exchange vital to the urban sector; it provides food surpluses to feed the increasing urban population; increased rural incomes provide a growing market for manufactured products; the rural sector can provide more employment at a lower cost

per job. The farming sector in Kenya contributes 30 per cent of GDP, supports 90 per cent of the population, provides 50 per cent of wage employment, and accounts for 60 per cent of export earnings.[15] Moreover, investment in rural development may, in the long run, lead to more balanced urban growth. Because a vigorous, commercialized agricultural sector demands a sophisticated level of services and creates jobs in transport, marketing, and processing, investment in agriculture is likely to foster the growth of smaller towns and rural service centers. A large and diverse rural industry simply cannot be adequately serviced by only one or two primate cities. Processing industries, whether tea factories, cotton ginneries, plywood mills, fibreboard factories, or creameries, must locate close to the producer. The wage earners in these types of enterprises create further local demand for foodstuffs, retail outlets, and services. Examples of the range of rural wage employment opportunities created by an expanding agriculture include:[16]

a) local processing of farm output (tanneries, coffee factories, packaging operations);

b) increased construction of permanent buildings (homes, farm buildings, dips, store houses, shops);

c) rural service employment (tractor drivers, motor repairmen, veterinary scouts);

d) retail outlets (selling both farming implements

and inputs, and consumer goods);

e) transport employment (lorries, buses, town-and-country taxis, garages);

f) small town services (banks, cafes, bars, bakeries);

g) minor works employment (road construction, water supplies, tree planting, bush clearing);

h) social and economic services supported by higher receipts from taxation and cesses (extension workers, produce graders, nursery school teachers);

i) marketing employment (cattle traders, cooperative society secretaries);

j) Small-scale industries (furniture-makers, tinsmiths, cobblers, tailors).

These forms of employment represent the multiplier effect of higher farm incomes. As farm incomes rise and services and amenities improve, the movement from the farm to the major urban center may be replaced by a shorter movement from the farm to the local market center. The creation of small towns, closely tied both socially and economically to the rural areas, can mitigate the massive sprawl of the primate city. For these reasons the growth center strategy, already outlined in the Kenya Development Plan, is important both for the provision of services to the rural areas themselves and to the absorption of potential urban urban migrants. Decentralization of large-scale industry is something of a pipe-dream for small countries, but development of small

service centers is a realistic possibility.

Another argument can be advanced in favor of maintaining investment in the rural sector, and this is an equity argument. This can be made either on humanitarian or political grounds. In either case it is impossible to ignore the welfare of the majority in the rural areas. To allow the rural sector to stagnate in the face of the rapid population growth now occurring in African countries would be fatal. Authors may dispute the importance of equitable income distribution for economic growth but few would question the importance of political stability. A broad based development of agricultural production through improved small holder farming is essential to such stability. In the long run, economic (and urban) growth is likely to be stronger if urban-rural disparities in income are decreased.

CONCLUSION

The most important factor in determining rural-urban migration is the disparity between urban and rural incomes. For the immediate forseeable future, it is unlikely that urban wages will be markedly reduced, and one can predict that urbanization will continue at a rapid rate. Nevertheless, a reduction in the income gap, through investment in the small holder farming sector, improving the terms of trade for agriculture through pricing and taxation policies, restraining urban wage increases, and decentralizing urban growth, is

tremendously important. Not only will such policies moderate urban growth over time, but they will also help create the base of purchasing power on which healthy urban growth depends. The intensification of peasant agriculture, conducted properly, can greatly increase the employment generating capacities of the rural areas and at a relatively low cost per unit. In sum, it is impossible to ignore the intimate interrelationships between urban and rural growth, and it would be unwise to plan for either sector in isolation.

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